

## WIJ ISSUE 25-3 (May-June, 2020)

This issue of the journal sees more of a paediatric focus, with a guest editorial and two research papers on nursing papers focussing on different issues related to paediatric intensive care unit (PICU) nursing. In some countries, paediatric and adult intensive care unit (ICU) colleagues are more aligned and meet regularly at scientific joint meetings [1], whereas in others they are almost entirely separate. Moreover, in some countries children and adults are still managed in the same unit [2]. There is no perfect model, and skills-wise intensive care is intensive care, whether it is delivered to a 4-week-old infant, a 15-year-old child or a 60-year-old adult. However, this does not mean that there should be generic ICU education programs for nurses, as although the skills may be similar, the application of these skills differs to children of different ages, as does the pathology of the patients [3]. As a nursing workforce though, we (both paediatric and adult ICU) are all highly trained and skilled and many of these skills are transferable. At this moment in time with a pandemic of COVID-19, this issue has never been more important. PICU nurses must, where possible, step up and assist adult ICU colleagues as they would assist PICU colleagues if COVID-19 affected predominantly children.

Our guest editorial written by Professor Anne-Sylvie Ramelet, Professor of Pediatric Nursing and a PICU nurse in Switzerland, highlights an increasing issue in PICU, that of 'long-stay' PICU patients, what this means, how they are defined and the implications for ICU nurses. Despite the median length of stay of children in UK PICUs being 3 days [4], this group of children who may stay weeks, months and sometimes years is increasing, reflecting an increasing comorbid population. Thus, this editorial is very topical and will share similar issues perhaps with that of adult ICU colleagues.

Unplanned readmissions to a PICU have worse outcomes [5] and being able to identify children 'at risk' for readmission can help us to target these and potentially impact upon outcomes. Konishi and colleagues [6] investigated the incidence and risk factors for readmission to PICU in a single Japanese unit within 7 days of discharge over a 4-year period. They found that only 2.5% of children were readmitted to PICU, with a median readmission time of 3.5 days post discharge. They noted three significant risk factors for readmission: an initial emergency (unplanned) PICU admission; initial admission from a general ward area and withdrawal syndrome during their stay. They concluded that one of these factors (iatrogenic withdrawal) was potentially preventable. This is interesting because the complexity of withdrawal assessment in the paediatric population has been demonstrated [7], but we must consider this further with targeted efforts to reduce iatrogenic withdrawal.

Family centred care (FCC) is the foundation of paediatric nursing but delivering this in a PICU can be challenging [8]. Freschette and colleagues [9] conducted a qualitative study over 6 months exploring PICU nurses' lived experiences about delivering FCC before, during and after a significant unit transformation project (to optimise unit layout and unit geography to improve FCC) in a single Canadian PICU. Data was collected over 6 months using multiple

methods: participant observation, photographs, interviews and document analysis. They found that despite an improved environment for delivered FCC and more family involvement, nurses continued to be child-centred in their approach. Nurses exhibited both pride (in their new FCC environment) and prejudice, in their negotiations with families. They concluded that solely changing the physical PICU environment was not enough to change the way that nurses practice FCC.

The study by Oduyale et al. [10] used focus groups to explore ICU nurses' views and perspectives about the concurrent administration of multiple intravenous medications through the same lumen. The main challenges were related to the absence of compatibility data and insufficient venous access, leading the nurses to request additional venous access, swapping infusion lines, changing medication forms and prioritising infusions. Apart from collecting data directly from frontline clinicians, an important contribution of the study is its use of the Functional Resource Analysis Method (FRAM) to provide a visual representation of all the activities and the multiple factors associated with the process of intravenous medicine co-administration. The study was limited by to 20 nurses from two hospitals in England but its findings should prompt hospitals to ensure that compatibility charts are readily available and updated to include data for all frequently used medications and to cater for the co-administration of three (rather than just two) medications. More extensive use of the FRAM should also be considered to identify potential risks associated with having to circumvent limited resources and inadequate venous access. This paper also promotes enhanced interprofessional collaboration between pharmacists and nurses in a critical care context.

The Braden Scale for Predicting Pressure Ulcer Risk is one of the most widely used pressure ulcer risk assessment tools in critical care settings [11]; yet, previous studies assessing its predictive value produced mixed results. This prompted Wei et al. [12] to conduct a systematic review and meta-analysis of previous studies investigating the predictive validity of the Braden Scale for adult ICU patients. Their comprehensive search in English and Chinese health science databases and in the grey literature led to eleven studies with a combined total of more than 10,000 patients. The pooled results indicated high sensitivity but low specificity, indicating that the scale is useful to identify ICU patients who are at risk of pressure ulcer development but much less efficient in identifying those who are not. This overall moderate predictive value suggests the need for further adaptation of this tool to the critical care setting or the development of new tools with higher predictive power.

The next paper tackles 'Failure to Rescue' and presents a qualitative service evaluation aimed at eliciting the factors that facilitate and hinder the escalation of care for deteriorating acute ward patients. Ede and her colleagues [13] conducted 55 hours of qualitative observations accompanied by ad-hoc interviews in several wards at two hospital sites in a UK National Health Service Trust. Field notes were analysed thematically, iteratively and reflexively. The

study captures complex and nuanced elements influencing the identification and timely management of deterioration and contributes to the body of knowledge about the human factors that impact decision making and escalation of care. The findings outline the value and the limitations of Early Warning Scores (EWS) in escalating care in particular clinical scenarios. Although EWS are based on objective observations, it is evident that clinical judgement plays a crucial role in their interpretation, which may lead to the avoidance of unnecessary escalation but also to crucial delays when escalation is required. The clear audit trail provided in this paper should be helpful to guide similar service evaluations and research in other settings, particularly in terms of addressing the methodological and ethical considerations underpinning ethnographic work in acute clinical settings.

It is increasingly being recognised that critical illness may have prolonged negative psychosocial consequences on both the patients and their family [14]. Indeed, this journal included several papers on this topic, including a study on family functioning during and after critical illness [15] in its recent special issue on the psychological impact of the ICU environment. Yet, the specific impact of transferring critically ill patients from rural settings to distant advanced care facilities on the patients' family has received much less attention. The integrative literature review of six quantitative and qualitative studies by Burns and Petrucka in this issue [16] is a welcome effort to address this gap. It is not surprising that stress and anxiety emerged as central to the rural family members' experience of such inter-facility transfers. What is, perhaps, more significant is the finding that these are mainly associated with modifiable factors, namely the family members' physical proximity to the patient, the financial burden associated with the transfer, the family's access to information and support networks and, crucially, the actions of health professionals. These findings should prompt ICU practitioners and managers to develop, implement and evaluate interventions to support such families. Future research in this area could focus on the long-term consequences of an inter-facility transfer on the family and on the experience of family members who are 'left behind' during inter-facility transfers.

The range of papers in this issue demonstrates yet again the depth and breadth of critical care nursing expertise and interests across the globe. We hope you find them interesting and inspiring and that they serve to remind us all that only we, as critical care nurses, can advance nursing science, and it is us who need to ask the important questions and seek to answer these. Finally, we would like also to encourage the submission of manuscripts from our neonatal intensive care nursing colleagues so that we can represent critical care nursing thought the lifespan.

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